UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,275	12/06/2001	Gerd Konrad Bayer	DE920000090US1	3365

			EXAMINER
877	7590	02/10/2005	FAROOQ, MOHAMMAD O

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ART UNIT	PAPER NUMBER
2182	

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<table>
<tr><td rowspan="2">Office Action Summary</td><td colspan="2">Application No.</td><td colspan="2">Applicant(s)</td></tr>
<tr><td colspan="2">09/683,275</td><td colspan="2">BAYER ET AL.</td></tr>
<tr><td></td><td colspan="2">Examiner</td><td>Art Unit</td><td></td></tr>
<tr><td></td><td colspan="2">Mohammad O. Farooq</td><td>2182</td><td></td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _04 February 2002_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-14_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-14_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _06 December 2001_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All   b)☐ Some * c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1.   Claims 1,3, 12 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated

by Smith et al. U.S. Pat. No. 6,801,927.

2.   As to claim 1, Smith et al. teach method, characterized by the steps of:

Operating a local memory being associated with the network coupling adapter as a

cache memory (items 133 and 123, fig. 1) relative to a system memory for storing

transmission control information (fig. 1; col. 5, line 39 – col. 6, line 43).

3.   As to claim 3, Smith et al. teach method comprising the steps of using said

transmission control for the processing of queues or queue pairs (col. 8, lines 55-67).

4.   As to claim 12, Smith et al. teach network coupling element comprising a local

memory being operable as a cache memory (items 133 and 123, fig. 1) relative to said

interconnected memory (fig. 1; col. 5, line 39 – col. 6, line 43).

5.   As to claim 14, Smith et al. teach system comprises a local memory being

operable as a cache memory (items 133 and 123, fig. 1) for storing transmission control

information (fig. 1; col. 5, line 39 – col. 6, line 43).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 2, 4-11 and 13 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Smith et al. U.S. Pat. No. 6,801,927 in view of Pettey et al. U.S. Pat.

No. 6,594,712.

7.   As to claim 2, Smith et al. do not teach InfiniBand Architecture.

Pettey et al. teach InfiniBand Architecture (abstract; col. 3, line 1 – col. 4, line

22). However, it would have been obvious to one of ordinary skill in the art at the time

of invention to combine the teachings of Smith et al. and Pettey et al. because that

would avoid the reduction in usable bandwidth of local bus of the system (col. 3, lines

20-28).

8.   As to claim 4, Smith et al. teach method comprising the steps of using said

transmission control for the processing of completion queue (col. 8, lines 55-67).

9.   As to claim 5, Smith et al. teach method comprising the steps of using said

transmission control for processing of address translation and protection tables

(inherent because of connections between adapter and server; and adapter and clients;

col. 5, lines 51-62).

10.   As to claim 6, Smith et al. teach method comprising the steps of using said local

memory for connecting at least one computer device (i.e. server) to a network (i.e.

between adapter and clients; col. 5; lines 51-62).

11.   As to claim 7, Smith et al. teach method comprising the steps of using said

transmission control information for bundled per queue or queue pair (col. 8, lines 55-

67).

12.   As to claim 8, Smith et al. teach method comprising the steps of configuring said

cache memory not to discard transmission control information for particular queues after

casting-out (col. 6, line 52- col. 7, line 15; col. 8, lines 55-67).

13.   As to claim 9, Smith et al. teach method comprising the step of writing said

transmission control information to the local memory (col. 5, line 39 – col. 6, line 43).

        Smith et al. do not teach InfiniBand. Pettey et al. teach InfiniBand Architecture

(abstract; col. 3, line 1 – col. 4, line 22). However, it would have been obvious to one of

ordinary skill in the art at the time of invention to combine the teachings of Smith et al.

and Pettey et al. because that would provide translation of virtual addresses of multiple

different remote nodes for the network (col. 4, lines 47-54).

14.   As to claim 10, Smith et al. teach method comprising the steps of using said

previous steps for connecting a plurality of I/O hardware devices associated with a

computing device (inherent since connections of clients, server and adapter; col. 5, line

39 – col. 6, line 43).

15.   As to claim 11, Smith et al. teach method comprising the steps of using said

previous step for providing communication channels for interprocess communication

between a plurality of process associated with one or more computing devices (inherent

since connections of clients, server and adapter; col. 5, line 39 – col. 6, line 43).

16.   As to claim 13, Smith et al. teach network coupling element comprising a local memory being operable as a cache memory (items 133 and 123, fig. 1) relative to said interconnected memory (fig. 1; col. 5, line 39 – col. 6, line 43).

Smith et al. do not teach InfiniBand Architecture. Pettey et al. teach InfiniBand Architecture (abstract; col. 3, line 1 – col. 4, line 22). However, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Smith et al. and Pettey et al. because that would provide translation of virtual addresses of multiple different remote nodes for the network (col. 4, lines 47-54).

17.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad O. Farooq whose telephone number is (571) 272-4144. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin can be reached on (571) 272-4146. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JEFFREY GAFFIN
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Mohammad O. Farooq
February 4, 2005